UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/671,245	09/28/2000	Masahiro Ishiyama	197808US2RD	7469

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EXAMINER
STRANGE, AARON N

ART UNIT	PAPER NUMBER
2153	

DATE MAILED: 07/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/671,245	ISHIYAMA, MASAHIRO
	Examiner	Art Unit	
	Aaron Strange	2153	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *25 April 2006*.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-42* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-15,17,18,20,21,23,24,26,28,30,32,34,36,38,40 and 42* is/are rejected.

7) ☒ Claim(s) *16,19,22,25,27,29,31,33,35,37,39 and 41* is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed 4/25/06 have been fully considered but they are not

persuasive.

2.   Applicant has significantly amended the claims and argued that several new

limitations are not taught by the presently cited references. The Examiner respectfully

disagrees, and the newly added limitations have been addressed in the rejection below.

3.   With regard to Applicant's assertion that "Logan and Elz are silent regarding

receiving plural domain name inquiry responses as a result of a single domain name

inquiry request" (Page 23, Lines 14-21 of Remarks), the Examiner respectfully

disagrees. Logan teaches receiving a single request for content from a client and

creating multiple request to determine the current response time of a plurality of content

servers (at least Col 5, Lines 3-18 and 45-59). Elz teaches distributed DNS to ensure

reliability of the DNS system. As discussed below, it would have been both

advantageous and obvious to query multiple DNS servers in order to select the "best"

one for the requesting client.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Logan et al. (US 6,578,066) in view of Elz et al. ("RFC 2182").

6.   In regards to claim 1, Logan discloses a domain name system inquiry apparatus

comprising:

current location information receiving means for receiving location information of

the apparatus itself on a connected network (by resolving the request, the receiving

means determines the location of a client on the network, col 10 lines 52-57);

current location management means for storing location information received by

said current location information receiving means (this information is temporarily stored

for checking the information versus a table of server locations);

server information receiving means for receiving server information regarding

plural redundant servers to which an inquiry can be made (The switch examines the

hand-off table for determining a server to hand off to, col 10 lines 58-62);

server management means for storing the server information received by said

server information receiving means (a hand off table is stored for all the servers, col 10

lines 58-62 discusses the use of the table);

request receiving means for receiving a inquiry request from a client (a request is

received from a client, col 10 lines 52- 57);

request transferring means for creating first and second inquiry requests based

on the inquiry request received by said request receiving means and at least one of said

location information and said server information, and for transferring said first and

second inquiry requests to the first and second servers (each server containing the

requested content is queried for its current response time)(Col 5, Lines 3-18; Col 6,

Lines 30-41), respectively;

response receiving means for receiving a first response to the first inquiry

request from the first redundant server and a second inquiry response to the second

inquiry response from the second redundant server (each server responds to request in

order to determine current response time) (Col 5, Lines 3-18; Col 6, Lines 30-41); and

request responding means for selecting the second inquiry response based at

least on server information corresponding to the first and the second redundant servers

(least costly server; Col 5, Lines 57-59)(closest server; Col 9, Line 60 to Col 10, Line

15), and for sending the second response corresponding to the second server to said

client (response is returned by the switch)(Col 5, Lines 51-55).

Logan fails to specifically disclose that the redundant servers are DNS servers.

However, redundant DNS servers are well known in the art, as evidenced by Elz.

Elz teaches the use of multiple DNS servers to allow clients around the world to

reliably reach a DNS server in the event that one is unavailable, as well as reduce the

load on the primary DNS server for the zone. Using DNS servers in the system

disclosed by Logan would be extremely advantageous since it would allow clients to

locate the best DNS server from the group of redundant servers to sent their resolution

requests. Since name resolution requests must be completed before content may be

retreived, using the fastest, closest, and/or cheapest DNS server for each client could

greatly reduce the overall latency and/or cost experienced by that client.

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to use the system disclosed by Logan to select the best

DNS server for each client so that the latency/cost of content requests would be

reduced and the load on the DNS servers would be balanced among the redundant

secondary DNS servers.

7.   In regards to claim 2, Logan further discloses:

algorithm receiving means for receiving an algorithm for selecting said response

result (a health check is done, which is an algorithmic examination of the network and

the servers, col 5 line 60 - col 6 line 41);

algorithm management means for storing the algorithm received by said

algorithm receiving means (the algorithm is stored by the checking system, tables I-IV

show the details of the algorithms);

algorithm processing means for selecting the second response result in said

request responding means by using the algorithm stored in said algorithm management

means (the results of the algorithmic expression are searched and the most appropriate

response is found and forwarded to the client, col 10 lines 37-65).

8.   Claims 3,5, and 6 are rejected for the reasons cited above with regard to claim 1,

since they recite substantially identical subject matter.

9.   Claims 4 and 7 are rejected for the reasons cited above with regard to claim 2,

since they recite substantially identical subject matter.

10.   Claims 8-14 rejected under 35 U.S.C. 103(a) as being unpatentable over Logan

et al. (US 6,578,066) in view of Elz et al. ("RFC 2182").

11.   In regards to claim 8, Logan discloses a domain name system inquiry apparatus

comprising:

        server information receiving means for receiving server information regarding

plural redundant servers to which an inquiry can be made (The switch examines the

hand-off table for determining a server to hand off to, col 10 lines 58-62);

        server management means for storing the server information received by said

server information receiving means (Col 10, Lines 58-62);

        request receiving means for receiving an inquiry request from a client (a request

is received from a client, col 10 lines 52- 57);

        request transferring means for transferring the inquiry request to first and second

servers based on said server information (each server containing the requested content

is queried for its current response time)(Col 5, Lines 3-18; Col 6, Lines 30-41);

response receiving means for receiving a first response from the first redundant

server and a second inquiry response from the second redundant server (numerous

responses can be received and forwarded by the switch, col 10 line 62-65); and

request responding means for selecting the second response based at least on

the server information corresponding to the first and second redundant servers (Col 6,

Lines 21-35) and for sending the second response result to said client (an ordered list is

sent to the client, with the best server being given priority, col 10 lines 58-65).

Logan fails to specifically disclose that the redundant servers are DNS servers

that respond to DNS requests. However, redundant DNS servers are well known in the

art, as evidenced by Elz.

Elz teaches the use of multiple DNS servers to allow clients around the world to

reliably reach a DNS server in the event that one is unavailable, as well as reduce the

load on the primary DNS server for the zone. Using DNS servers in the system

disclosed by Logan would be extremely advantageous since it would allow clients to

locate the best DNS server from the group of redundant servers to sent their resolution

requests. Since name resolution requests must be completed before content may be

retrieved, using the fastest DNS server for each client could greatly reduce the overall

latency experienced by that client.

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to use the system disclosed by Logan to select the fastest

DNS server for each client so that the latency of content requests would be reduced and

the load on the DNS servers would be balances among the redundant secondary DNS
servers.

12.   In regards to claim 9, Logan discloses a domain name system inquiry apparatus,
further comprising:

        algorithm receiving means for receiving an algorithm for selecting said second
one response result (a health check is done, which is an algorithmic examination of the
network and the servers, col 5 line 60 - col 6 line 41);

        algorithm management means for storing the algorithm received by said
algorithm receiving means (the algorithm is stored by the checking system, tables I-IV
show the details of the algorithms);

        algorithm processing means for selecting said particular one response result in
said request responding means by using the algorithm stored in said algorithm
management means (the results of the algorithmic expression are searched and the
most appropriate response is found and forwarded to the client, col 10 lines 37-65).

13.   Claims 10,12, and 13 are rejected for the reasons cited above with regard to
claim 8, since they recite substantially identical subject matter.

14.   Claims 11 and 14 are rejected for the reasons cited above with regard to claim 9,
since they recite substantially identical subject matter.

15.   With regard to claim 15, Logan further discloses means for selecting the second

inquiry response based on a priority of the second server included in the server

information being higher than a priority of the first server included in the server

information (closest server has priority) (at least Col 9, Line 60 to Col 10, Line 15).

16.   With regard to claim 17, Logan further discloses that a response time of the

second domain name inquiry response is greater that a response time of the first

domain name inquiry response (a slower second site will still be selected if it is

closer/cheaper, etc) (at least Col 5, Lines 55-59; Col 19, Line 54 to Col 10, Line 15).

17.   Claims 18,21,24,28,32,36 and 40 are rejected under the same rationale as claim

15, since they recite substantially identical subject matter. Any differences between the

claims do not result in patentably distinct claims and all of the limitations are taught by

the above cited art.

18.   Claims 20,23,26,30,34,38 and 42 are rejected under the same rationale as claim

17, since they recite substantially identical subject matter. Any differences between the

claims do not result in patentably distinct claims and all of the limitations are taught by

the above cited art.

Allowable Subject Matter

19.   Claims 16,19,25,27,29,31,33,35,37,39 and 41 are objected to as being

dependent upon a rejected base claim, but would be allowable if rewritten in

independent form including all of the limitations of the base claim and any intervening

claims.

Conclusion

20.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

       A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

21.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Aaron Strange whose telephone number is 571-272-

3959. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Glen Burgess can be reached on 571-272-3949. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AS
7/9/06

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